STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

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MINUTES
STATE BUILDING CODE COUNCIL
PUBLIC HEARING

Date: October 17, 2003
Location: Renton Holiday Inn

Council Members Present: Stan Price, Chair; Chris Endresen, Vice Chair; Senator Jim Horn; Representative Sandra Romero; Steve Mullet; Peter De Vries; Neva Corkrum; John Neff; Steve Nuttall; Rory Calhoun; Dave Baker; Rick Ford; Dale Shafer; Terry Poe; Bill Misocky

Council Members Absent: John Fulginiti, John Cochran

Visitors Present: Chuck Day, Terri Hotvedt, Marty Gillis, Anjela Foster, Melissa Gannie, Robert Cull, Diana Cull, Jeff Cook, Harry Steinmatz, Paul O'Connor, Sue Alden, Phil Brazil, Kraig Stevenson, Fred Volkers, Dave Cantrell, Larry Stevens, Dwight Perkins, James Gray, Maureen Traxler, Diane Hansen, Mike Brennan, John Hogan, Larry Waters, Dennis Augustine, Bruce Smart, Don Brubeck, Becky Ernstes, Jerry Barbera, Mike Nykreim, Tom Young, Patrick Hayes, David Gerard, Michael Barth, Steve Swarthout, Bob Lovett, John Forde, Greg Rogers, Jeff Sloan, Garth Williams, Jerry Farley, Chris Ricketts, Lee Kranz, David VanBeek, Kraig Stevenson, Mike Reid, Nanette McElman, Karen Braitmayer, Robert Miller, Al Dietemann

Staff Present: Tim Nogler, Al Rhoades, Krista Braaksma, Patti Thorn

CALL TO ORDER

Stan Price, Council Chair, called the meeting to order at 10:00 a.m. Everyone was welcomed and introductions were made.

REVIEW AND APPROVE AGENDA

The agenda was reviewed and approved as written.

PUBLIC COMMENT ON ITEMS NOT COVERED BY THE AGENDA

None received.

PUBLIC HEARING ON PROPOSED CODE CHANGES

Stan Price reconvened the public hearing on proposed code changes. He briefly discussed the guidelines for giving testimony and asked that comments be kept to 3 minutes in length. He also stated that today is the deadline for submitting testimony in writing.

Building Code

Sue Alden

I'm testifying in strong support of proposed amendments to 1009.3 and Chapter 29 as proposed by the Council in their handout. I oppose the proposed amendment to 1107.6.2.2.1, which raises the percent of Type A units from the national standard of 2 percent to 5 percent. When we did our barrier-free code years ago, we changed the 2 percent, which the UBC had, to 5 percent in the hope that this would provide adequate rental units available to those needing them. This has not worked. The advertisers of these units are afraid to advertise them as accessible because when they do they get lawsuits slapped on them if they are a half-inch off in the location of something or if something else is slightly askew. The people advertising, the owners of units, aren't familiar enough to know the code to know if their units are accessible or not. There are many jurisdictions that do not review the code for Chapter 11, and we know that most inspectors from building departments don't check accessibility. So, with good intent, they may feel they have an accessible unit but in fact it may not be. I feel this is not a code issue, this is a communication issue. There are no units advertised in the Seattle Times for instance, in Section 621, and haven't been as long as anyone can check back in the documents. Section 621 is apartments and condos for handicapped. People are afraid to list it there, they are afraid to list it in the general sections, and they are also even afraid to tell people over the phone that this unit is accessible for fear that they will get a lawsuit. The people that need these units have to go out and look at all the general units in the areas and by then they're usually rented to someone else that doesn't need them.

I suggest that the disabled community get together with the apartment owners association and find a way to word their ads to indicate to those needing an accessible unit that these are available so they can go out and see if they meet their particular needs. I support the national standard of 2 percent.

I also support Option 1 on Ceiling Heights, at 7 feet to the ceiling. I propose an amendment that would be in accordance with the listing for means of egress and in the residential code and what we had in our own building code—7 foot ceilings measured from the finished floor to the lowest projection. This would actually be more conservative than the 7-foot 6-inch without that amendment, because I have 9½ - foot and 10½-foot high ceiling lights and they would project below the 7 foot ceiling, in fact they might even project below the 6-foot 8-inch clear required and means of egress. I also feel that if a means of egress is indicated as being safe at 7 foot

ceiling with projections down to 6-foot 8-inch those are the most critical areas of the building when people are in a panic state, they're trying to get out of a building, they have to see exit signs and so on, that if that's good enough for means of egress it should be good enough for any other area. I can't imagine any architect designing a building, a large room, with a 7-foot ceiling. That should be up to the designers to design the height that is appropriate to their space. We never had any restrictions on anything but means of egress, residential and a few special areas like projection rooms before, now we're adding a 7-foot 6-inch ceiling without any restrictions for projections and I think that's wrong. This is a minimum code and our RCW 19.27.020 mandates our code require minimum requirements consistent with health, safety and welfare of the building occupants. I don't think the 7-foot 6-inch is a minimum requirement and I think an optimal ceiling height is not appropriate. I don't know where the 7-foot 6-inch came from, it seems like an arbitrary and an aesthetic judgment.

Jeff Cook

I'm Jeff Cook with the City of Lacey. I've been involved in the building inspection process for approximately 15 years. I would like to thank the Council for providing me this opportunity to express an opinion on these important topics. I have two topics and one of those topics has two separate items. First, I would like to address two issues today in regard to Type A dwelling units with proposed amendment 1107.6.2.1.1, on page 19. This amendment addresses when accessible units are required for R2 occupancies and the total number of accessible units. First, the current standard for the state of Washington for accessible units is 5 percent and the Council has proposed to maintain this standard. However, the IBC has been adopted by the majority of jurisdictions and is therefore becoming the national standard. With the criteria used to determine whether the amendments are necessary, we must ask ourselves, if we differ from the national standard do we have a unique character in this state to justify this change? Basically what we're doing is deviating from a national standard and the criteria that's set up for the Council to judge whether these amendments are necessary or not is enclosed in WAC 51-20-040. Item 3 states the amendment is needed for consistency with state or federal regulations. This would deviate from the nationally accepted norm or from the accepted regulations. Item 4 from 51-20-040 states, "the amendment is needed to address the unique character of this state." Without the benefit of a study, we don't know if 5 percent is actually a necessary amount. Therefore, my recommendation is that the Council adopt the current national standard of 2 percent; however, I further suggest the Council convene a study to determine if the state of Washington is of a unique character or has special circumstances that necessitate a higher level of accessible Type A dwelling units. Basically, what we're dealing with is we know what the national standard is and if we adopt the 2 percent we will meet that. We don't know if we have a unique need for a special circumstance, so that's unknown at this point. If we adopt 2 percent now, we can always revert back to 5 percent if the study is convened and it does indicate that 5 percent are needed.

The second issue I would like to talk about is – it's the same Section, 1107.6.2.1.1. The amendment states Type A units in occupancies of Group R2 containing more than 20 dwelling units—20 is the key at this point because RCW 19.27, State Building Code, references RCW 70.92.100, and that is provisions of buildings for aged and handicapped persons--with this referencing it, there are provisions in there, there is one provision in particular, it says apartment houses with 10 or fewer units shall be exempt from this chapter (which is barrier-free compliance). As the proposed amendment have 20 listed as the threshold, and that would conflict with another RCW, which states 10. My recommendation at this point would be to

reduce the number, which states 20 in the current amendments to 10 and that would make it consistent with other state laws.

The second item I would like to address is the stair rise and run provisions of the IRC. The IRC, Section R311.5.3.1 provides a maximum stair rise, but does not provide a minimum stair rise. IBC Section 1009.3 provides a minimum of 4 inches for the stair rise. A 1985 study from the National Bureau of Standards, over 5,000 serious accidents attributable to stairway use occur yearly in the United States. Again, this is in 1985 so it's a little dated but it's still appropriate. Such a high accident rate has led to numerous studies relative to stairway safety. Researchers indicate a complex interaction of many factors affect human response to stairway use, one of which is stairway geometry. Research evidence reports that the treads should have a minimum dimension of at least 11 inches and the rise should be between 4.6 inches and 7.2 inches. The National Bureau of Standards recommends a minimum rise or height of 4 inches. WAC 51-20-040, which is what is the criteria that should be used to judge whether an amendment is appropriate or not states, "the amendment corrects an error or omission" and I believe the lack of minimum riser height is an error or omission that should be addressed. My recommendation to the Council is that they modify IRC Section R311.5.3.1 to state, "the maximum riser height shall be 7¾ inches and 4 inches minimum."

Harry Steinmetz

Hello, my name is Harry Steinmetz, I'm an attorney representing the Washington Health Care Association and its Center for Assisted Living. What I wanted to address here is not contained in the CR-102 that has been proposed, the International Building Code. But in going through that this morning, I did realize that it also is pertinent to the new WAC proposal, Section 51-50-0313, Licensed Group Home and my comments are germane to that. The issue that I want to bring before you today deals with delayed egress locks, which are currently the standard in nursing homes for people with cognitive disabilities. It is written into the current code section that they have an operation in an emergency situation where the locks disengage and everyone can get out. I do want to make it very clear that the Washington Health Care Association strongly supports those responses in an emergency situation.

The issue that I want to bring in front of you today, however, is that those locks simply are not functional on a day-to-day basis to protect the safety of those residents that don't have the cognitive ability to be in the outside world. The Washington Health Care Association represents approximately 165 nursing homes and 165 boarding homes and assisted living facilities across the state of Washington. Many of them serve people afflicted with dementia, Alzheimer's disease, and other kinds of cognitive impairment. I've handed some written testimony and I will summarize that rather than read all 3 pages.

What I want to impress upon you today is that most of the reasons that people are put in a nursing home or put in a boarding home that deals with dementia or Alzheimer's disease is because they can no longer be cared for by their family at home. Simply, the family cannot afford to keep them safe. They are asking somebody else to care for their loved one because they expect them to care for them in a safe and secure environment. That's what as a consumer they are purchasing and that's what the care level that they are expecting when they ask someone else to take care of them.

Furthermore, both the federal and state regulators have an expectation that the environment that these people are going to be kept in, those that are cognitively impaired, will be a safe one for them. The problem right now is that under the current building code and the International Building Code proposal is that they have a delayed egress lock where you simple lean upon it for 15 seconds and it opens and sounds an alarm and they can get out. Some people have a tendency to wander but they don't understand, for instance, street lights; they don't understand traffic lights, they don't understand sidewalks, that's beyond their comprehension. But, the current system is set up on a day-to-day basis that you don't even know there's an issue until that alarm has sounded and they're out the door. The problem exists for what's called a wander guard system where they actually wear a wrist bracelet or an ankle bracelet that again sets off an alarm once they get out. The idea is to keep them safe, is to prevent them from getting out in a non-emergent situation. That's what we would like you to address.

As a consequence what we've tried to do is draft some proposed language, which is found on pages two and three of our written testimony. We've adopted the language of the National Fire Protection Association Life Safety Code, 1997 Edition. What that says is that a door locking arrangement without delayed egress shall be permitted in a health occupancy, and I have modified that to say long-term care occupancies or a portion thereof, for those where the clinical needs of the patient require specialized safety and security measures that are provided for their safety. That's what we would like you to consider that could be put in either as an exception into the delay egress lock section, but it also needs to be addressed in the boarding home place as well.

We will be happy to talk to you, work with you, will provide any expertise in long-term care or cognitive impairment that you require to do this. Hopefully this will be addressed soon because it has been an ongoing problem that people are simply escaping from their facilities and they're not being safe because they wander out into traffic before somebody can rescue them. Thank you.

Steve Nuttall

I have a quick question. I need some further definition on which occupancies that you think this would be appropriate for, or a specific location. I noticed in your material you suggest "where the clinical needs of the patient" but that's pretty general, pretty global.

Harry Steinmetz

There are certain nursing homes and certain boarding homes that take care of—particularly in the industry there is a development now for Alzheimer or dementia patients where you have a section of the nursing home or a section of the boarding home that is specializing in dementia care, that would certainly be one of those locations that's a portion of the boarding home or nursing home where that would be appropriate. I think there are also some mental health facilities where this would be appropriate. There is currently written into the building code a very generalized exception, but my understanding is that it is discretionary and as far as I can tell, I haven't researched it thoroughly, there are only about four places in the state that are allowed to actually have a secure facility at this point. That's simply not enough for the population that's out there. Furthermore, such as in the situation at Eastern State Hospital, Heritage Grove, which is a nursing home in Yakima, where you're not going to want to put your

mother in there because the residents that are in there now are far beyond just simply a level of dementia and cognitive impairment that you would feel safe asking your mother to be there.

Kraig Stevenson

Hello, I'm Kraig Stevenson, representing the International Code Council. It's very nice to be at this point in this long process we've undertaken a number of years ago. What I want to address before I get to a couple of suggested correlation things from one code to the other, is the level of what we're adopting or not adopting. Specifically, the Chairman asked me a couple of meetings ago to bring forth some comments in regard to the administrative rules that are written. And, in particular, Section 51-50-007 and the counterparts of the same sections of 51-51, 51-52, 51-54, and 51-56. They are all trying to do a very well intended thing, but they're actually taking some tools away from the hands of local government.

If we look at the statutory charge that the Council has and has been charged with by the Legislature, we look at 19.27.074, the charge is to adopt and maintain codes to which reference is made in the other section of 19.27.031. I'm not debating which code should be named within Section 19.27.031, I'm suggesting that is the level of authority the statute has given the Council. In Section 51-50-007 there's a number of codes that are named that are not adopted. That's given some local jurisdictions the impression that they can't use other documents such as the Urban Wildland Interface Code and others. It might be an incomplete list—if that's where the Council thinks their authority is, you should go on and you should name other codes promulgated by other organizations that you're also intending not to adopt. I don't know that you want to have a 45-page list of codes that you're not intending to adopt. I think it's much more simply put the way the Plumbing Code TAG wrote the administrative rules in 51-56-007, which is saying the codes as named in the statute as amended and adopted by the Legislature. This would allow you to use the Solar Energy Code from IAPMO, it would allow you to use the Swimming Pool and Hot Tub Code from IAPMO, it would allow you to use the Urban and Wildland Interface Code from ICC, and it would allow you to do anything you wanted at the local government. I would suggest that Section 51-50-007 and its counterparts are made consistent with the Plumbing TAG's proposal for the administrative rules of 51-56-007. I think that would be very helpful; that local governments would then be able to have at their disposal any document that they feel would allow them to administer their public safety programs for building, plumbing, fire, and the rest.

Other than that, I support the amendment package, and I have a few other comments when we get to the other codes. Thank you.

Mike Reid

Good morning, my name is Mike Reid and I'm here to represent Pat McBride, an architect from GMS. Mr. McBride was drawn away on an emergency and expresses his apologies for not being able to attend. Mr. McBride asked me to testify on behalf of the adoption of 1107.6.2.1, which you've already heard other speakers address. We support the adoption of that with the exception of the 5 percent issue. We believe it should be adopted as a 2 percent number so it remains consistent with national codes. Number one, consistency—the purpose of the adoption of the IBC is to create consistency on a national basis. Second, as another guest speaker as already noted, our Washington Administrative Code (WAC) provides you with the criterion guidance for

making a determination as to whether or not you should make an exception to that national code. That clearly states that in the event that a special study does not prove beyond a doubt that that special exception is warranted, it should be denied and the code should remain consistent with the national code. Third, pure simple case of market supply and demand. Less than 7 percent of the existing base of 5 percent of accessible units are used by the disabled community. When less than 10 percent of a housing population supply of a specific type is needed, we would ask you to respectfully question the need for that additional supply. Therefore, and as a builder, developer, and property owner, I can personally attest to the fact that the units that we have available for disability go unused. It seems to me that there is a reasonable case for over-supply in this market. We would concur with the prior guest speakers by stating we believe the appropriate answer, with all respect to the disabled community and their special requirements or needs, is to promote better communication between the people that have the units and the people that need the units. The issue of over supply we believe is clearly evident and we would request that you adopt the codes in accordance with the two percent standard. I do have a copy of documentation to provide and thank you for your time.

Marty Gillis

Hello, my name is Mary Gillis, I work for Berryman and Henigar and I also represent the City of Maple Valley. I would like to thank the Council for all their hard work and reserve the right to come and speak to the mike later. Thank you.

Nanette McElman

Thank you. Nanette McElman, the Institute for Business and Home Safety. And as this is the first time I have ventured out to the state of Washington to appear before you, we are located in Tampa, Florida. We represent the property, casualty insurance industry. We are a non-profit trade organization. We were put together to try to promote natural disaster resistance within both commercial and residential structures. We support the package as amended; however, I would like to state that we do participate in the national code process and we would encourage the adoption of these codes intact. These are considered consensus documents, which mean these are the lowest common denominator of building that everybody national considered to be the safest for the citizens in the U.S. So, when you make any sort of amendment, you are running the risk of diminishing that lower level of safety. I would like to state that seismic design is primarily what we are concerned about, being natural disaster resistant, you are upgrading your codes in a very positive light and we would like to congratulate you on that. Thank you.

Karen Braitmayer

My name is Karen Braitmayer, I am an architect and accessibility advocate. I'm here today to speak in favor of the amendments the Barrier-Free TAG worked on. I was a member of that TAG, along with a variety of other representatives of the disability community and the building and construction community. I have submitted written comments, which I hope you guys will read. I'm going to try to jump down in those to hit some of the highlights. You've heard a number of comments today about the opportunity facing you to change the percentage of Type A units in multi-family housing from our current requirement of 5 percent to 2 percent. I'm here to tell you the majority of the TAG felt very strongly about maintaining that 5 percent. This has been in our code since the development of the barrier-free code in Washington State. This is an

opportunity—it was put in as an opportunity to provide choice in our housing stock and that effort is still here today. Moving to 2 percent does not increase the benefit to the disability community. In contrast, it makes it more difficult. So, please keep that in mind.

I also wanted to let you know, in contrast to the minority report that was written, the proposed ADAAG draft, which was published in April 2002, Section 233.1.1, which now addresses multi-family residential occupancies, states that they require 5 percent of residential dwelling units to meet their requirements for accessibility. The ADAAG has consistently provided 5 percent as the percentage of any multiple of a single family—for instance multiple dressing rooms, 5 percent need to be accessible; multiple work stations, 5 percent need to be accessible. We need to keep that in mind when considering this option.

I also wanted to let you know that in our fast and furious work, we had a very short period of time to work and we did our very best, there was something that I have since noted that we missed. I would like to ask that that be considered for inclusion in the new work. Current code section 1106.10.5 addresses automatic and power-operated doors and covers the location and placement of operator touch switches, those are also known as push plates, in relationship to the door swing. Please consider the addition of the language "touch switches shall be mounted 36 inches above the floor and not less than 18 inches nor more than 36 inches horizontally from the nearest point of travel of the moving doors" and add that to the list of items that we are proposing going into 1101.2. As a user, I know that the location of touch switches are a frequently missed item in construction today, and without this language builders and designers are left with no guidance as to how to put these things in an accessible location.

I wanted to let you know that the TAG sees the proposed amendments that we've placed in front of you as the first step towards creating a revised state accessibility code that would be ready to submit to the U.S. Department of Justice for certification for equivalency once they make a decision as to adopting some kind of new language. Washington State has taken leadership in the development and the maintenance of accessibility regulations in building code for over 30 years and good for us! This Council should feel really good about it. It's our mission—I hope you all feel this way—to maintain what we have. In that tradition, we must be vigilant to protect the level of accessibility that this Council has provided for citizens of this state. I applaud the Council for moving forward with the IBC and the updated language proposed for accessibility. With the inclusion of the amendments proposed by the TAG, I'm confident that this code will be a positive step forward for the state.

Rory Calhoun

I participated with Karen on the Accessibility TAG and I strongly support the 5 percent and I don't see any reason to go to the 2 percent. I wasn't swayed by any testimony today so far. In fact, I understand a lot about—even though those apartments might be built to an accessible standard, they're still available and rented by other folks. It's not like the property owners are going and leaving these things vacant. In fact, they're probably more desirable units—we've seen that in the camping world and the hotel world that accessible rooms and sites tend to have a higher desire to the public at large because they're usually nicer, they're larger, and in general people can still use them. There's no barrier to an able-bodied person to use an accessible apartment, so I would not support a 2 percent.

Larry Stevens

Thank you Mr. Chairman, my name is Larry Stevens and I represent the Mechanical Contractor's Association and the National Electrical Contractor's Association. These are two construction associations that comprise probably 100 or so employers who employ thousands of skilled employees doing electrical work, plumbing, pipefitting, and sprinklerfitting. We do probably in excess of one billion dollars a year in construction in Washington State in public works as well as private works. We're very involved in the construction industry and very interested in this issue. Some of you know we've been around here on these issues for some time. I will just tell you, Mr. Chairman, for your benefit I will only testify once even though I have comments that will be applicable to all the International Codes that are here before you today.

I have 8 points to make here today—I've already made two of them, who I am and who I represent. Third point is we are here to say, and your CR-102 says your purpose here is to consider whether to adopt the 2003 International Codes and we say no. We suggest you do not adopt the 2003 International Codes. We are very concerned about what's going on here. We believe that this whole process and these International Codes impact two very important things—safety and cost to my clients, as well as to the taxpayers in the state of Washington, local governments as well as state government. I think it's something that needs to be considered. I will note that you do note in your CR-102 that there's no economic impact on small businesses identified. I see that statement, but I don't see any backup to that. I would suggest to you that we are large contractors and small contractors and we see a huge economic impact on business, as well as on government. We are very concerned. We say no, do not adopt the 2003 International Codes.

Point number four, we have codes in Washington State that are in place. The Uniform Codes are in place, they are working; believe it or not they are still published, and they are available. If we could look out the windows, you could look out the windows and see construction going on. These codes are utilized in more jurisdictions throughout the country than any other code. I would suggest that we do have codes and you do not have to adopt these codes right now—there is no deficiency.

There have been suggestions that the International Codes are somehow the successor code to the Uniform Codes. I would submit to you that the Uniform Codes are the successor to the Uniform Codes—there are still in place. Some would say that the Uniform Codes are published by somebody else, they're not published by the ICBO anymore because the ICBO decided to quit publishing them, that was their choice. They're still published. One of my friends made this analogy—a Jeep is still a Jeep even though it's made by Chrysler now and it used to be made by American Motors. The Uniform Codes are still in place, they are the safest, they are the best, and they are the least cost for this state, for my contractors, for your local governments. It's the best thing to do is to stay with those codes.

Point number five, and I'll say this to you and I know most of you and most of you know me, some of you don't, some of you are new, I'm not saying this to be argumentative, but I don't think you've done your job. I think—I say your job, I think the Legislature depended on you to do the job. To look at what is out there, to make decisions about what needs to be done. You have dedicated a lot of hours to this process, and I appreciate that. But, again, I do not think you've done your job. I'll give you backup, but I'm not going to go into all the details. I think

that it's pretty clear, and it's been clear, and I've been saying this for a long time that this Council made up its mind on these codes, these International Codes, long before they even had an opportunity to compare what else is out there. Before the other options, in fact the lower cost options, were even available to compare. So, I would suggest that you have time to do your job, but I don't think you've done it. I'm sorry, and I'm sure it's coming across that I'm telling you you're bad people—I'm not. I don't think you were given the opportunity. I think, frankly, you were led to do things and I can appreciate in your position you're going to listen to people who say, hey this is what we ought to do. I will be bold, I've written it down, I think it's the Building Officials. The national association, the ICBO, has had a plan for a long time to adopt these International Codes and that's what basically has been done by this board.

My point number six. The country right now is looking at codes that are available to use in this country. And, it is a process. There are different states and different jurisdictions looking at and comparing and adopting different codes. The NFPA gentleman, I don't know if he'll speak here, the NFPA 5000 is now available to compare. It was not available to compare when this Council supposedly did its comparison, it wasn't available. It is now. It's being adopted around the country. There are places, there are jurisdictions that are looking at it. I would suggest that ICBO got the jump, but it's not the only code out there. This body, which is trusted by the Legislature to do a thorough job, I think hasn't been able to do a thorough job because it hasn't been there for them.

My point number seven, I will leave with you my written comments, I will leave a letter that states how we feel. I will leave a four-page document that goes through some major concerns that we've had with the process that's gone down here. I hope that if you're new you'll at least look at this. I hope the older guys will look at it too, but I hope if you're new I hope you'll look at it. It lays out what we feel is a wrong process by this body. Again, I don't think it's because you're bad people, I think it's because you've been led there by some people who have an agenda. I will also leave a copy of a letter, it's already in your record, it's a letter that was—I believe it was Charly Mitchell, Mitchell Plumbing, left a letter again speaking to the process that was undertaken by this body and I think led by people who had an interest in these International Codes and they led this body.

I guess I will close by saying, I guess I think that—and I ask you to do this—pretend you're sitting in a dark room all by yourself and you're going to be honest with yourself and you're going to say I did or I didn't compare the options that are out there and are available. I'm going to suggest that you actually undertake that exercise. Did you really compare the options that are available? Are you doing that job for the Legislature? I think it's important to ask your staff because I think you rely on your staff, did they actually compare the options available before they recommended to you, if they did recommend to you--I don't know if they did but if they did, did they compare. I would submit that if you do that, if you do sit in that dark room in your mind and ask yourself did I actually compare the options that were available, I think you will have to say I haven't because those options were not available when this body made its decision. I won't go through all the litany on how this decision was made, it was made way before, this decision was made in 1998, 1999, 2000 to adopt these International Codes way before the other options that are available to the people of the state of Washington were even available to compare. I guess that's what I would ask you to do and I will leave my comments for your use. Thank you, Mr. Chairman.

Rory Calhoun

Were you a member of any of the TAGs comparing the codes or were any of the people you represent on the TAGs? In other words, did you have a chance to participate in that process so you know how it went?

Larry Stevens

Of course. There was no TAG comparison before the decision was made by this body. There was none. You have to look at the record, and I would suggest you do that because a decision was made by this body before the NFPA 5000 was even available to compare.

Dwight Perkins

Good morning, Mr. Chairman. For the record my name is Dwight Perkins, representing the International Association of Plumbing and Mechanical Officials, also know as IAPMO. Mr. Chairman, you gave me plenty of opportunity to speak in Spokane so, without repeating myself on each of the items I testified last week on, I just want to touch on one issue in the building code if I may. Although I did talk about peripheral portions of it, I would like to center my discussion on page 25 of the proposed adoption of the 2003 edition of the International Building Code. It has to do with 2902.1, Number of Fixtures and the requirements. Mr. Chairman, I would ask that that section be deleted along with, on the next pages 26 and 27, the tables listing the requirements for fixtures in different occupancies. My proposal is to replace it with the 2003 UPC Section 413.1, Fixture Count and the associated table in the Uniform Plumbing Code, Table 4-1, Minimum Plumbing Facilities. The reason why I'm proposing that—I'll just make one brief comparison if I may. Under the proposal, the first one, Assembly Places, Theaters, Auditoriums, Convention Halls, Dance Floors, Lodge Rooms, Casinos, and such places as would have limited time for fixture use. It is our belief if you do a comparison with the 2003 UPC, that number one I don't see on the male side of restrooms, I don't see where this table refers to any urinals in facilities. I would assume that it doesn't cover urinals. So in other words, they can have one water closet for one to one hundred individuals. Conversely, we require in the UPC one urinal for 1 to 100 and for water closets if you look at that, they require in the female column it says 1 per 25. I don't know about the rest of you, but when I'm going to auditoriums or theaters or ball games and I'm waiting and waiting for my wife to come out of the waiting line, she always gets mad at me and says you're a plumber why don't you do something about this. If you do a comparison, we require 3 per 1 to 50 and in this it's 1 per 25. It continues on that path.

Finally, Mr. Chairman, if I may. As I mentioned in Spokane, in keeping with the spirit of the legislation to adopt the 2003 UPC, I would ask that you would keep that portion of that table for fixtures in the UPC and replace it in the proposed adoption of the IBC.

Robert Miller

Mr. Chair and members of the committee, Robert Miller from the National Fire Protection Association. Just wanted to take a few minutes, I had a couple of things I wanted to bring up. Most of you are aware that during the legislative process I represented the NFPA codes and standards adoption. We had a lot of good support doing that. That process took its course. Some of you remember some of my testimony and so forth. The NFPA understands that

whatever course Washington State takes with the ICC codes, you will be adopting for the first time dozens of NFPA Standards that are not just reference standards, but these standards by reference become part and parcel, part of your code. We pledge to support Washington code users in helping them in that process learning about and interpreting these documents. It will be a new effort on all your part. We have found in other jurisdictions that have adopted some of the International Codes that there was an immediate increase in questions and the need for interpretations and training in some of these areas. We pledge to do that for the folks in Washington and look forward to working with you in that regard.

Today I wanted to ask for your indulgence to briefly touch on the statute that talks about liquefied petroleum gas installations. We have received several questions regarding how that applies with the International Codes and the International Fuel Gas Code. I was just reviewing the language that says "the International Mechanical Code except that the standards for liquefied petroleum gas installation shall be NFPA 58 and 54." We would look forward to discussing what this means because people in the propane industry are concerned about how this may, or may not, apply with the International Codes. I think most of us are aware of the fact that in your municipal areas, natural gas is the only way we're going to have piping systems installed. However, in the rural areas where you do not have that available, many times the propane installers are left with the responsibility of installing those systems. It would be clear that in those areas where the source of gas is LP gas then NFPA 54 would the installation standard for piping. There is some confusion about the differences between the International Fuel Gas Code and NFPA 54. Some of the provisions are very similar. But the NFPA 54 is a safety code, it's not just an installation code. There are provisions in there for emergency procedures if you have leaks, if you have explosions, other applications that are not just building applications where you have chemical plants, you have gas systems that have different types of gases, fuel gas systems for vehicles and so forth that are addressed in NFPA 54. The propane industry is very comfortable with NFPA 54 and 58 and those applications. They are familiar with those documents and have used those for years. We would like to work with them on how we define how 54 and 58 applies in that regard. We offer that as a helpful thing to try to clarify how this works and we would be glad to work with this group on that.

I appreciate the opportunity. Feel free to call on the NFPA. We will stand behind and support our documents. We will assist the users of those documents in the applications thereof. Thank you.

Maureen Traxler

Maureen Traxler, City of Seattle Department of Design, Construction and Land Use. We submitted written comments. I wanted to say that I think the International Building Code as recommended in the draft rule is a good code. Our comments on that are mostly editorial and I think we'll just clean up a few things. Without further comment, thank you.

Don Brubeck

Good morning, I'm Don Brubeck, representing the Codes and Energy Committee of the Washington Council of the American Institute of Architects. We've submitted some written testimony. It would have been a lot longer, but we only left in the comments we could all agree on so it's limited to a few specific items. In general, we would really like to commend the

process and the work of the Building Code Council and all the TAGs. We appreciate all the effort. Adopting the ICC codes meets the AIA's national and regional goals of adopting consensus based codes and standards that are setting forth minimum standards for health, life safety, and welfare. Consensus codes without favoritism to special interests and that are cost effective. We support amendments to the code only to the extent that they really represent conditions that are unique to Washington State, which might include other laws and regulations and characteristics like seismic risk or energy production. We support continued improvement of the code through research and open code development process of the ICC and the NFPA and other national organizations rather than piecemeal amendments at state level.

In the International Building Code, a couple of specific things. In 903.2, there is a proposed amendment to reference fire code paragraph 903.2.2 for Group E. There probably should also be a corresponding amendment for 903.2.1.2 for Group A, which is a companion amendment that just seems to have been missed. Under Chapter 11, we really would like to commend the effort to minimize the amendments to IBC Chapter 11, which recognizes the progress that the IBC has made in coming close to the content of Washington's barrier-free access regulations. They've now caught up to us, I think, and we would like to, in the long-run—maybe in the next edition—really work toward minimizing the amendments even further. It's really a burden for architects, especially those who are designing federally funded projects, to try to sort out the minute differences between the ADAAG and the ANSI standards and the state regulations and the IBC. We would encourage continued use of the ICC code development process to work toward just one code that would work for all of us.

Specifically, under 1107.6.2.1.1, Type A Units, we do oppose the change from 2 percent to 5 percent for R2 buildings with more than 20 units because we don't see that Washington has a different population than other states in that regard. We would support the minority report on the provision.

Under 1208.2, Minimum Ceiling Heights, we support Option 1 as opposed to Option 2 and question the need for a state amendment to this provision without evidence that people in Washington require different ceiling heights than in the rest of the country. This is a new area of regulation for the building code, beyond residential occupancies. That might be a misguided area to regulate, seems like we can generally provide ceiling heights that people aren't going to run into without a code amendment or without a code provision, other than residential. We would support using the code development process to change that rather than our state code.

There are just a couple of editorial comments. Thank you.

Becky Ernstes

My name is Becky Ernstes, I work for Department of Labor and Industries Elevator Section. I was a part of the Accessibility TAG and it was a great experience and I thank you for the opportunity to come before you today. I have few comments. On page 18 of the new section 1104.4, Multi-Level Buildings and Facilities, the Elevator Section would like to recommend that we not adopt either the IBC code or this amendment. We feel that the old Chapter 51-40 rule was a better rule as written. It does not give you the same exceptions for A, I, R and S Occupancies and we feel if those are excluded, even though they would not be excluded if they had to meet the requirements of 1107 and 1108, we feel that if they are excluded at all that we

would provide less…accessibility is not always our issue, our issue has to do with workers and safety of workers and people moving throughout the building. Elevators are a way of transportation, not just for people with disabilities, but to move the materials and goods in a building. The building codes do not seem to address that issue as far as the safety of the people who use that building. They address the people who move and need accessibility, but we would like to keep the old amendment in because we feel it provides a better level of safety for the building and all the occupants of the building to be able to move throughout the building.

There is another section that has to do with the old section, 1105.3.1.1 and 1105.3.1.2 that further defines where elevators are required. We feel that the current IBC and the ANSI 117.1 don't offer as clear or equivalent direction as the old 51-40 codes did.

The only other comment we have for existing buildings, Section 3409.7.3 as amended would include that platform lifts shall comply with Chapter 296-96, which is the Elevator Code for the state of Washington. However, this states that platform lifts shall be permitted as a component of an accessible route in an existing building. We would like to add "<u>if it complies with 1109.7</u>", which gives you the criteria of when you can use a wheelchair lift. We feel that even in existing buildings, if you require some kind of ADA accessibility, then we should be using either a LULA Elevator or an accessible elevator and not a platform lift. That's all the comments I have. Thank you for the opportunity.

Mike Nykreim

Hello, my name is Mike Nykreim and I represent the homemakers left in this state of Washington—really I'm here to represent BIAW and my own company. I welcome this opportunity to address this committee. Right off the bat I want to point out the representation we have from our state elected officials here, Senator Horn and Representative Romero. I appreciate your help tremendously in bringing the fruition of the ICCs here to this point. Hopefully we can move ahead and complete the adoption process, we're really only half way through.

I want to point out here—I want to set a theme if I could. I'm only going to speak once because I have to get back to making some homes for a few families that are moving in. The theme I would like to say is, I remember a point in time when my great uncle who used to draft airplanes over here in the red barn, there was a great industry here in this state. I read in the paper that this industry is now only going to see assembled in the state of Washington just the vertical stabilizer of the airplanes. My great uncle used to draft over in the red barn after he finished his tour of duty in WWI as a muleskinner. Fred Lawton went on to become one of the vice presidents of the great Boeing Company and now my daughter, who is the fifth generation of women in my family graduated from the University of Washington, won't be working for them because they're leaving and they are going to go to a more business-friendly environment.

That's what we're here to do, to help create a more business-friendly environment in the state of Washington. A place where we all love to live in, but we need to be able to work in. What we're talking about is regulatory reform, the efficiencies of accommodating the needs of most people as we can in the most practical standard that we can. When I got out of college and had to build a home, this was my building code [held up a code book]. Over the years it expanded a little bit from one code to another to another. After awhile we got into a gestation where this one book wasn't enough, we had to go to two. Then, just a few years later, this one book wasn't

enough, these two books weren't enough so now we're going to three. And, on top of these three books, which are the current regulations, the Uniform Building Code, we have plumbing codes, electrical codes, we've got representations of fire codes--I can get into zoning regulations I have to get into to create a home some place in this state.

We have an opportunity now for two thirds of the builders in this state, which is the one-to-four family dwelling units, of taking all these codes right here and set aside all of our little differences that we might have amongst these codes and put it all under one cover. We're only half way there. With the acceptance of this code, I can open this up and I can look at my electrical code, my mechanical code, and my building codes, plumbing codes under one cover.

So, I would like to just point out I was here to discuss that. I thanked the representatives. I don't want to point to three things that are always amendments that are always asked every time. We want to make sure that these amendments are limited to three criteria. The first is the amendment is needed to address a specific state policy or statute—something very specific and unique to the state of Washington. Maybe something that addresses volcanoes, I don't know, but who knows what might come up. The next issue that any amendments that are asked for that it is only needed for consistency with state or federal regulations. We're dealing with physics here. Physics is universal. Human safety is universal. Let's get away from the minutia and get into the practicality because it is the minutia, which is destroying the economy of this state. Finally, the amendment basically will correct errors and omissions. I think we've heard some issues brought in front of you where there are probably some minor errors and omissions that we need to address.

Two things I want to leave you with. One: this isn't just for us homemakers, but also the government entities that have to take on these codes. It would be so much easier if people were cross-trained so an inspector from Redmond can easily move to Issaquah. When Issaquah's got a whole bunch of building permits going through or Redmond's falling off, it would be so easy not to have to retrain staff. If it's Tri-Cities that's falling back a little bit, maybe some inspectors can go to Yakima. Or, for that matter, if an inspector needs to be imported into the state we can bring someone in from California, boom, everybody's educated to the same standard. So, again, I ask you guys to, ladies and gentlemen, to adopt one code. Let's try and keep businesses in the state. Let's set aside some of the small differences and let's get back to the business of creating the best state—not just to live in, but also to work and play in. One exception to everything I've said: We got to do something about doorways. Okay, 6-foot 8-inches is just too low. I appreciate that. I want you to know that in my life, I've learned to duck and so I think everybody can learn to do just a little bit different so we can all work together. Thank you.

Fred Volkers

My name is Fred Volkers. I'm a certified journeyman plumber in the state of Washington. I'm the NW chapter chairman for IAPMO. I'm here this morning to echo Larry Steven's concerns that you have not considered all the impacts. There are economic impacts involved with this that have not been brought forward. I would also like to echo Dwight Perkins' concerns about the plumbing fixture allowances in the new code, that they are not adequate for what is really required. I would also like to make one little correction to the previous speaker's statement. The way the adoption process is going right now, if the IRC is adopted it does not, and I hope it stays this way, it does not adopt the electrical or plumbing provisions. We have very good codes to

cover those. Also, if you look at that document he held up, it was not the IBC; he's already jumped into the IRC, that's the next section of this meeting.

We need to really understand what codes we're adopting. We need to really understand that if you're—he hauled out a bunch of different codes, those are codes from different years and a progression of what's happened within those code systems. If you adopt the International Building Code, International Residential Code and all the International Codes, the books that are for sale for those are not just going to be the individual books that you see there. It does not take just one book to do International Building Code. You have other references that are within that book. In fact, I think it was pointed out at one time that there are about 27 or 28 books that are going to need to be bought in order to stay within the International Code process and use all the International Code as they're going to be adopted in this state. Again, I would like to reiterate, I do not support the adoption of the International Codes. Thank you.

Phil Brazil

I'm Phil Brazil with Reid Middleton. I submitted some written comments to you already. I'm a structural engineer and building code consultant and I've been involved in accessibility design for over 25 years. My hair my not show it, but I have photo ID to prove it if you would like to take a look at it. I used to work for ICBO for a few years about 3 or 4 years ago. What I would say to people is that we are on a threshold of a national consensus. You might think I'm an advocate of the ICC; I'm not, I'm an advocate of the national consensus. We're still on the threshold, but at least we have a date out there sometime. I served on the Building Code Technical Advisory Group and what I want to speak to specifically concerns accessibility. Our TAG was not able to look at the efforts of the Accessibility Sub-TAG. As you well know, they had a monumental job in trying to sift through all of that and come up with a proposal. What I did, once I found out they had a report available, is to take a look at it. I took their proposed amendments and went to the original source document to see what those source documents said, see what is existing, what is being proposed and what is being deleted and then to evaluate that in light of my knowledge of the existing IBC Chapter 11 and ANSI A117.1. My comments are merely to editorially improve the amendments that are being proposed before you. The document you have has explanations for each one of them.

Jerry Barbera

Thank you Mr. Chairman. My name is Jerry Barbera representing the Airport Building Department. I am also a member of the Building Code and Fire Code TAGs and substitute member of the Mechanical Code TAG. I was also on a sub-TAG for the Building Code Chapter 29, Plumbing Fixtures that you heard a little bit about. I wanted to correct some statements that were made by the gentleman from IAPMO. There is in the footnote, which is number three on page 29 of the document we're talking about, provisions for urinals that can be, in fact, up to 75 percent replacement of the water closet, urinals themselves. The information about using the Uniform Plumbing Code fixtures schedule instead of that should, of course, come separately as an amendment or something of that nature. But, I anticipated that that might be the case from some people who came to our meetings on that, and so I put together a table that shows the differences between the state code, for that matter between the International Building Code and the state code itself. You can see that there are quite a few anomalies between the two codes.

I'll leave that for your information, if you do want to have that. One last thing. I wrote a minority report for the Plumbing Code TAG. I'd like to withdraw that at this time and work with Sue Alden, who was the main person on the TAG, to come back next year or the year after that with something that can be a compromise and help out with fixtures. Thank you.

Residential Code

Chuck Day

Mr. Chairman and Council members, I'm the Director of Regulatory Affairs for Adair Homes, Inc. We specialize in the states of Oregon, Washington and Idaho with the construction of site-built, quality, energy-efficient, simplistic, attainable, single-family homes. And we build about 700 homes a year at this time.

As the Director of Regulatory Affairs for Adair Homes, I've served on the Oregon Building Code Structures Board, which recently by legislative action was divided into a commercial and residential aspect of the boards. And I'm hoping to be appointed to the Residential Board now, since the builder-representative member on the other board was deleted. I also served on the Building Code TAG for this revision of the code, this current effort here in Washington.
Our company now has been building homes under the IRC, with Oregon and Idaho amendments that they apply, for about a year now. And the code has been successfully employed. I don't have written materials for these for you, so I hope you'll take notes. And I hope you'll consider acting on what I'm going to recommend or encourage.

First, for the sake of regional uniformity, I think that our company has some input on that since we build in the areas that I mentioned, for code enforcement to be uniform as much as possible. Of course, this state has a legislative mandate now to adopt the International Residential Code (IRC), with some chapters using other things. And so it will do me no good to complain, I don't think, at this point about whether I think some other code or the current edition of the present code really is of better benefit or more cost-effective.

But I would say that I would encourage that you develop a Residential Building Code TAG specific to the Residential Building Code. Oregon has had a separate Residential Building Code for many, many years. And so there's been a lot of involvement, public involvement, private involvement, business involvement, and involvement of governmental agencies in the development of a residential, stand-alone code. It now takes the form of the 2003 IRC with Oregon amendments.

And so I believe that much can be gained, first by from what I've seen, by specializing a TAG to the residential code. And second, with our willingness to serve in that capacity, in order to try to find ways to take what's been known through that process in Oregon and Idaho and see how it might apply to the residential code in Washington, to affect uniformity regionally as much as possible. I think that's the mandate. Both states require a minimum code, not a maximum code, but a minimum code. So I think there would be a lot of things that would be similar, comply with one another. So I really think that would be one suggestion I'd like to make. I'd really hope the Council would consider that, and perhaps do that.

Secondly, on a specific item. There are probably going to be comments on the energy code. And there is a provision in that energy code to allow for framing with foamboard sheathing on the exterior of the walls to meet the energy code. Why do I mention that now? Because there is no provision for such allowance under the structural chapters in the IRC, that it is all right to do that, to put the foam sheathing on the wall and then structural sheathing or structural siding over top of that. There are national evaluation reports that say that that's fine. But there is nothing, which would allow for it. So, on the one hand, you'd be adopting an energy code, which allows for that, but not really addressing it under the structural codes for seismic bracing, as to how you would accomplish that.

Again in Oregon, we have been able to have a state with a little bit different process for framing regulations and the ability for the state to issue a statewide alternative method. And so we are using that system, with the foamboard on our homes and then the siding or structural sheathing over the top of it. And there's a nailing schedule you do, certain size nails, and all. And I think really that would bring some connection between the energy chapter and then the structural chapters, if you would consider doing that. And so I can speak to that a little bit more at the energy part of the code. But I wanted to mention it now.

Kraig Stevenson

Kraig Stevenson, representing the International Code Council (ICC). You know, I also represent myself up here sometimes too. I participated on the Plumbing TAG for many years, with the charge to do what's best for Washington. And the reality is I find no conflict between what I believe in personally and what I do for my employer. In the services I provide to the state and the jurisdictions, there's no conflict. Because I want what's best for Washington. And I think that's what everybody wants. And when you look back over the last four or five years, you're hearing one common thing from all groups. Give me a code I'm familiar with, so I can get on with life. I want to do my job. You hear that from every sector. Now the residential group, they say one thing in addition to that. Give me provisions I'm familiar with, but put it in a more user-friendly document. And that's the IRC.

And so, what I'd like to address first, in a very productive way, is compare some of the proposed amendments so that they're better coordinated, so that the state's present codes that they have selected work better. And they have to deal with aligning the requirements for Section R-311, which deals with stairways, and aligning the provisions that are in Section 1009.3, state amendments, Item 5 in the building code. I think you want to correlate that same information as that state amendment over into the residential code.

I would like to make a comment about the process. I have been totally satisfied with the process that this Council has gone through. There was some lack of clarity a number of years ago as to whether or not the Council had the ability to name new codes by different titles into the statute and adopt rules. So they went to the Legislature and the Legislature--you know, I kind of kept score, 41 to 8 in the Senate and 87 to 11 in the House. There's no lack of clarity here in the minds of our Legislature on HB 1734 that was adopted. It named the codes in statute. And I'm saying that the best thing for Washington is to leave that decision to our Legislature. They spoke. They've directed us to adopt these codes. And we really have the requirement of following the process, which was followed, of the Open Public Meetings Act, 42.30, and the

Administrative Procedures Act, 34.05. I'm satisfied that this Council followed that process, being able to speak for you as one element to that.

I would like to clarify one piece of information that I hear recounts of out of Spokane, and I don't know exactly who made it. But it went something like 3/8-inch drywall was allowed on the wall in the separation between a house and a garage. And I tried to track that down, who that could have been, and I assumed that maybe the individual was confused as to what code that might of come out of. That's not something out of the IRC, that's published by the ICC. It does say in the IRC, 1/2-inch drywall on any separation between the house and the garage. It goes further to say that if there's habitable space above that garage, it needs to have 5/8-inch drywall in there. It's very clear in that. And I got to thinking, well, you know, we all look at so many codes, because we really did evaluate them through this process, and I did have a copy of the NFPA 5000. And what you'll find out is that the provision is very, very similar, except in the NFPA 5000 it tells you that that separation is not required. Whereas in the IRC, it tells you separation is required, but it tells you how to build it. So they're substantially the same. I would attest that the IRC is an open, public forum, nationally debated. When the requirements are so substantially the same, I don't understand why we're still debating technical comments, rather than addressing our comments to what the state's proposed amendments are. Thank you.

Marty Gillis

Marty Gillis, Berrymen and Henigar, representing the City of Maple Valley. I've been an active participant in the code development process for a number of years, since 1982. I won't show you my driver's license; it may scare you. And what I'd like to comment on is the diligent work of the Council. The comparison between all these various codes is an ominous task. It's great to see that you've done specialization for all of the TAGs, so that you have them represented.

I would support any TAG idea for the residential codes because they're, in my opinion, here to stay. The residential codes are necessary in order to hit a specialized group of builders and construction, and are probably our largest type of building by number of all of the buildings that we build in the state of Washington. So it is only fitting in my opinion that, as much as possible, one codebook is published to deal with the specialties involved in building a house, the plumbing, and the mechanical systems. It's a very convenient document. It also saves some cost. If you did plan on building anything but houses, you could perhaps survive with fewer codes than if you were a builder looking to build all of the various buildings that we build.

Now the previous codes that have had this idea, published a book called "the One- and Two-Family Dwelling Code." And the problem with that document was that it didn't seem to correlate well with the processes in updating all of the other codes. And many jurisdictions and states didn't support that document. So there's been a reoccurrence and a pledge to support the residential code throughout the ICC. And so this produces a good document.

Now there is some concern I have with the ceiling heights. And you might find that humorous considering my short stature. But the differences between the building code and the residential code, knowing when to use which, is dependent upon the finish of the exterior grade and the number of stories produced in that dwelling unit. So you could take a look at a building and decide which codebook do I open. Do I open the building code or do I open the residential code? And it has to do with the arrangement of that dwelling unit. Is it ground-related? A townhouse

variety? How many stories above grade plane do we have? And you make a decision which codebook you will open.

Life doesn't always turn out the way you plan. And plans don't always reflect the final building. And we live in an area where we've got hills. So I would embrace any idea that would cause a similarity to occur between the building code regulations of height and ceiling and that of the residential code.

So I'm supporting the idea that as much as possible these two ceiling height requirements read the same. Because I can see modification over time to buildings where you may start out with a single-family dwelling and later convert to a dwelling unit or an accessory dwelling unit. And I would hate to block that ability for growth, especially in the urban boundaries in our cities. I see that, if necessary, to take a look at ceiling heights in order to make it more able to make it an addition to a single-family dwelling, especially in older portions of our cities such as Seattle, where the University District has story and a half type styles of houses. So it would help the additions and remodels as well to take a look at lowering ceiling heights. Now I realize there are those that are tall, but the industry has regulated commercial construction. And I think that the demands of the public will be met as far as heights of buildings.

So thank you for your efforts. Thank you for looking at the IRC. I will close with one other comment. And that is I've heard bandied about the cost of switching codes. Why don't we just keep with the same code? Why switch to the IRC when we have the UBC that we could choose to adopt? And here's why. The UBC does not include, within its covers, within the main body of the code, there's references and appendix, but not within the main body of the code, several features now found in both the IRC and the IBC. And that is things like flood plane information and sliding and drifting snow. And so the features in the International codes that are now present that are not in the UBC, jurisdictions are still regulating. It just takes a lot longer to get the information. You have to go to more than one source. I like them all in one book. Thank you.

Nanette McElman

Nanette McElman, Institute for Business and Home Safety. I'll make this brief, because it's similar. I would like to point out to you that the proposal as written does pull apart the IRC. And I would really like to encourage the state of Washington to think about the building community. Because our building stock really depends on what's in the code and how well enforced the code is. When you start putting different chapters in from different codes, you're not going to have as consistent a document as you normally would have.

The ICC process has the National Association of Home Builders, who have three votes, more than three times the amount of anybody else on that committee, and has an enormous amount of participation up there to make sure that this code is consistent and does reflect the building needs of this United States. So I would really encourage you to not pick apart these codes, because it makes it more difficult to do in the field, it makes it more difficult to enforce, and then you really don't know, from an evaluation point of view from our industry, what you've got. It's very difficult for us to follow what's happening. When you start mixing the energy provisions from one code and the structural provisions from another code, you have something we like to call "potential mold problems." You know, we are really suffering in the United States now from self-composting buildings. This is not where we want to go.

I would also encourage you to adopt the supplements that are being created now for the IRC. A lot of changes have been made to make sure that walls are drainable. You know, *botrys atra* is not something we ever want to see again.

So I think that as a Council I would also like to recommend that you look to be leaders and not follow the regional trends, because Oregon did some things to their code structurally that make it less than safe, as considered by the national consensus, earthquake resistance. Those are things that you should not want to do.

So I would really encourage you to adopt the IRC as it is, with its supplements, to make sure that you have the lowest common denominator as a minimum standard for this state. These are not conservative codes. These are things that we agreed that were absolute minimum. You should only look to increase the durability of housing, and not subject it to lesser standards. Thank you.

Dave Cantrell

Thank you, Mr. Chairman, members of the Council. Dave Cantrell, representing Snohomish County. I'd just like to thank all of you for your hard work. I know there's a lot of work ahead, in gearing up for the changes, responding to legislation, as well as all the jurisdictions are busy doing that. I know, I have a busy schedule getting ready for that, as always happens when we go through a code cycle.

In regards to the IRC, I did submit written testimony. There were three recommendations within that testimony that pertain to the IRC and one that pertains to the Uniform Plumbing Code (UPC). So I thought I would just speak to you too, real quick, just in case you have any questions.

The first one has to do with the scope. It appeared to me that there was some language that was left out in the adoption of Section R-101.2. That's on page 3 of the CR-102. Without including multiple single-family dwellings or townhouses, we wouldn't have a code that would apply to those if we didn't include this language in there. That's how it's worded in the IRC. In looking at the CR-102 for the IBC, they did not include those dwellings. In fact, they are specifically exempted from the IBC. So I think it was just an error. And so I ask you to consider that that language be included in there.

The second recommendation has to do with in the IRC, Section R-313.1.1. Now this is not in the CR-102 because it was not amended or proposed for amendment. But in that section, it speaks to the upgrading of smoke alarms whenever there are alterations, repairs or additions. And you'll see the exceptions to that have to do with what kind of work is being done within the dwelling unit. But now we are incorporating mechanical provisions, fuel gas provisions within the IRC, and my concern is that I don't think what is intended is for any work that is done to those systems to require the upgrading of smoke alarms in a building. We did a lot of dwellings where they convert from their fuel energy type, or whatever the source may be, or just do some repairs, replacing perhaps a heating unit or an air conditioning unit, and I think that would be a little overboard. I don't think that was the intent. And I think it would be appropriate to add an exception that would say "repairs to equipment or systems regulated by Chapters 13 through 24 are exempt from the requirements of this section."

Those are my recommendations. Thank you.

Don Brubeck

Don Brubeck, Washington Council AIA. These comments can apply to the mechanical and fire codes, too, so you won't have to call me back.

We support the adoption of the IRC and support the limitation of amendments to those necessary for coordination with other codes and regulations unique to Washington. We have just a couple of items in our written testimony. And that concludes my testimony.

Mechanical Code

Kraig Stevenson

Kraig Stevenson, ICC. I don't want to have to belabor a point, but I really do believe that we need to be consistent within the different chapters of the Washington Administrative Code. And the mechanical code, being WAC 51-52 and Section 007, I believe should read the way WAC 51-56, the Plumbing TAG, put it together. And that all has to do with making sure that there's the most tools in the hands of local government regardless of what source they choose those tools to be, and limiting the amendment of and the exclusion of the codes as adopted in RCW 19.27.031 as the statute dictates. So to read the plumbing code section, even though this is mechanical, I prefer that language, which is "codes referenced which are not adopted through RCW 19.27.031 shall not apply unless specifically adopted by the authority having jurisdiction. When referenced, as appropriate, such reference shall mean the International Building Code (as adopted and amended by the state of Washington), the International Fire Code (as adopted and amended by the state of Washington), the International Mechanical Code (as adopted and amended by the state of Washington), the Washington State Energy Code, or other locally adopted codes if applicable."

Having said that, there still remains no element within my mind that makes the statute unclear. The direction was to adopt the UPC. I was on the Plumbing Code TAG. I don't take exception to the TAG report.

There was one question that came up in testimony. And I want to reassure you that in the mechanical code's specifications for the IMC that references different pieces of ANSI-recognized installations, a statement was made which fuel gas code should be adopted. And one of the statements was made that the manufacturer's installation requirements require compliance with NFPA 54, when in fact, I have two ANSI standards for appliances. One of them is ANSI Z2110.3; and it specifically says this: The installation instructions (so this is an ANSI standard to which equipment is manufactured to, and it's telling the manufacturers that their installation instructions) shall indicate the installation must conform to one or more of the following as applicable: local codes or, in the absence of local codes, the National Fuel Gas Code. And then it names ANSI Z223.1, NFPA 54, the natural gas and propane installation code, and it goes on and on and on. And in the case of other standards, it's very clear that it's the same. The installation shall be made in accordance with local codes or, in the absence of local codes, in accordance with the National Fuel Gas Code, the National Standard of Canada, the Natural Gas

and Propane Code, the International Fuel Gas Code, the Federal Manufactured Home Construction and Safety Standards, 24 CFR Part 32E.

What it is that's really distressing is that if there were no local code, for instance like in Idaho, there's not necessarily a mechanical code required in rural areas. Following that comment about Idaho, there was a statement made to take a look at what recent developments were in Idaho. And the Mechanical Board--there's a July 29, 2003 letter from the Deputy Attorney General that indicates that that Mechanical Board is a licensing board and they are limited in their scope and purview.

So the confusion over what to adopt, I think, is well behind us. And I just would like to see the administrative rules in the WAC, in subsection -007, consistent across all the WAC rules that the Council adopts.

Michael Barth

Michael Barth, representing Kitsap County. I just wanted to thank this Council and express my strong support for the adoption of the International family of codes, including the adoption of the IMC and the IFGC, intact with as few amendments as possible, with a clear statement identifying NFPA 54 and 58 only as standards in accordance with the intent of the state Legislature.

SHB 1734, amending RCW 19.27, adopts the IMC with the additional verbiage stating that standards for liquefied petroleum gas (LPG) installations shall be the NFPA documents, ANSI Z223.1. LPG requirements within the International Fuel Gas Code (IFGC) are actually reproduced from and maintained by that ANSI process. Thus, the RCW requirements are satisfied by the adoption of the IFGC

As building officials and local jurisdictions, we need a document that contains the latest technology in a clear, enforceable form to ensure the safety of the public at large.

As a last note, not to repeat what Kraig said, I offer my agreement with Kraig's comments regarding the verbiage for removal of excluding specific codes. Thank you.

Michael Casey

Michael Casey, representing a water heater and boiler company. All gas-burning appliances, the manuals are written to the National Fuel Gas Code. I haven't had an opportunity to do any comparisons. And there's nothing available on comparisons from our engineering departments with regard to what effects that would have.

I have a concern that we'd be creating lots of interpretation issues on the part of inspectors and contractors by saying, "put equipment in to manufacturers' recommendations." I'm using a different code for the construction of the system within the building. I don't feel that any of the factories that I've talked to have any motivation to change from one source document to another, writing out a manual to tell everyone how to install equipment to. And so I see that as a potential interpretation problem.

I've never seen a copy of the IFGC. I didn't even hear about it until about two months ago. So I just wanted to make that statement because I have a concern about that.

Fire Code

Diane Hansen

Diane Hansen, representing the Washington State Association of Fire Marshals (WSAFM). I'll be very brief. Thank you very much for the opportunity to speak to you today. The WSAFM has a membership of about 225 fire service and associate members. We've followed this process and participated very closely. And we're very pleased with the point that we're at now. We have members who participated in the various TAGs. And we fully support the recommendations of the Fire Code TAG. We appreciate your work and look forward to continuing to participate. Thank you.

Kraig Stevenson

Kraig Stevenson, ICC. I have really only one item here. And it has to do with correlating the proposed amendment from the fire code back to the IBC. Maybe there could be some clarification, if it was taken into account.

But in regard to Section 903.2.1.2 dealing with Group A occupancies, which modifies the model document, that section number is correlated with the same Chapter 9, Section 903.2.1.2 out of the IBC. And since they read the same in both documents, I wouldn't want you to have a conflict between the IBC and the IFC as amended. So it would be my recommendation to make that companion amendment in the IBC. That concludes my comment.

Steve Nuttall

The section in the building code, Kraig, is really a copy of the fire code, is it not?

Kraig Stevenson

Yes, it is.

Steve Nuttall

Editorially I would think we'll probably handle it.

Jerry Farley

Jerry Farley, representing the Washington Independence Day Association. Mr. Chairman, Council Members: Our association is actually in the fireworks business, so we are interested in the code. I'm here just to testify in solidarity with what the fire service has said. We're supportive of the provisions as they're found in the code. Thank you very much.

Plumbing Code

Chuck Day

Chuck Day, Adair Homes. Mr. Chairman and Council, this is in consideration of the plumbing code amendments contained on page 12 of that document and Section 608.5 regarding the termination of the drains from pressure relief valves on hot water tanks. The proposed new language there mirrors language already in the Oregon plumbing codes. And by endorsing this, what the majority of the TAG on this came forward with this language, the Council would be helping to create uniformity regionally between Oregon and Washington codes. Presently in Oregon we are allowed, if we choose to, to run the pressure relief valve drain to an approved other location. And they cite of these other locations, rather than as the code is written in Washington--it's kind of vague and just says "other locations." In Oregon they specifically took locations that had previously been interpreted as all right and drafted them into additional locations right into the code. And one of those is to an approved drain pan with a drain. That allows us to have one drain into a drain pan and then out to the exterior of the home or to another approved discharge location. And, whereas in Washington now presently we have to run pressure relief valve lines off of the pressure relief valve and to the exterior of the building or another approved location, and a drain on the drip pan. So you have these double drains. And this proposal as written then would allow in one- and two-family dwellings the provisions that are utilized in Oregon to be utilized in Washington as well.

For the sake of the homes we build, there has not been an issue with any of these as being discharge locations. We build about 700 homes a year, as I mentioned previously. And we have not had any reported incidents or problems. But what it would do is allow us to create greater uniformity in our specification, our planning and our documentation for construction, and also bidding and other things, which is vitally important to our efforts to create affordable housing, to have uniformity throughout the region. So I speak in support of it. Again, it mirrors language from the Oregon plumbing codes that have been recently adopted.

Fred Volkers

Fred Volkers, speaking for himself and IAPMO. I've been a plumber for over 30 years. I'm the local chapter chairman for IAPMO. I was a member of the TAG that approved the amendment that the previous speaker spoke about. I was unable to make it to the meeting where that amendment was approved due to my workload. I work as a plumbing inspector.

I oppose this portion of the state amendments for a couple of reasons. Now, single-family dwellings are where you want to make the exception. I don't know what the difference is between a water heater that's installed in a single-family dwelling or a water heater that's installed in a multi-family dwelling, or a water heater that's installed in a commercial venture. This, if you don't know it, is a drip pan. If you tried to picture in your mind what we're talking about for a drip pan—this is it. The subject is, it has a drain on it. This one has a one-inch drain on it. The code says it has to be the same size as the pipe that goes into it. Most relief valves will have a ¾-inch pipe going into it. Three-quarter inch pipe under the right amount of pressure can deliver 140 gallons per minute. Relief valves go off because of over pressure. This area, where the piece of Styrofoam is in the middle, that's the water heater sitting in there. The only amount of the drip pan you'd have left is what's around the outside. I did an experiment—it's unscientific, sure—but I took a hose at home and put this on the ground and put water into it. Within 20 seconds, which is the amount of time it takes to pour this one gallon out of this jug,

that pan overflowed, even with a one-inch opening in it. I'm talking about the potential that under pressure, on a ¾-inch line—we can even go to a ½-inch line, say that the restriction on the relief valve is such it would only go to a ½-inch line—it could deliver 30 gallons in that time. If we dropped the pressure and only gave it 15 gallons per minute, in that 20 seconds we're delivering 5 gallons. Five gallons means this thing's overflowing. You have water running in places you don't want it to. I had a problem with that a few years ago. And, like I said, I don't think that a water heater, regardless of where it's installed, it only goes by what it's supposed to do. And this particular case, it was multi-family—21 units—they suffered their own version of a flood Thursday. A broken city water line caused the water heaters in this case to overflow into the apartments. Apparently the person who wrote the article didn't realize it's not overflowing, it's relieving the extra pressure. The manager said that water began coming into the apartments at 1300 NE 20th Street at about 9 a.m. On the landings, we had standing water as high as six or eight inches and about two or three inches in the apartments. So really, as I said, a water heater doesn't know where it is. Rick Sled said the broken main added an additional 45 pounds of pressure. We're talking about a relief valve that goes off according to two principles, one is added pressure. And unless you do something to cut that pressure off right away, and that means go to the city and say, "Hey, your main is sending more than 120 psi into my house and my relief valve is going off," or, you go and shut the water off to your water heater, you're going to have that potential draining out your relief valve. The other is over temperature. And who wants scalding hot water overflowing into their house because the relief valve went off and dumped into the pan. Thank you.

Dave Cantrell

Dave Cantrell, representing Snohomish County. First of all, I'd just like to reference again my written testimony, Recommendation number 3, correcting the reference from 604.13 to Section 604.14 would be the appropriate section referenced there. I think staff has already picked up on that. I just want to make sure, make that a matter of record.

I'm also in support of the change regarding the relief lines, relief valve dropping into a pan for one- and two-family dwellings. When we discussed this at the TAG, I presented this. I also had sought some information from Terry Swisher, who is with the State of Oregon Plumbing Board. He's also the Chair of IAPMO's UPC Technical Code Committee. And he said that they had not experienced any problems. He didn't foresee any problems with such a situation.

Considering what the normal function of these valves are, I can say, from my own personal experience over the years, 30 years of plumbing experience, I've seen more damage from leaking dishwashers and washing machines than I have seen relief valves open full bore. Typically they dribble, is what they do. As far as splashing, if they were to drop into a pan and splash, right now we drop them to the floor. We drop them to the floor where a floor drain may be nearby. So splashing is going to happen under current conditions.

So I'm in support of the change. I think it would be good for us to look for something that's going to be consistent with, as Chuck brought out, what is in the State of Oregon.

And I would just like to make a quick reference to some of the discussion previously about the IFGC and NFPA 54. I would just like to mention that right now we currently administer Chapter 13 of the UMC. So NFPA 54 has not been something that we've looked at for propane per se.

So I really don't see a difference in how that applies to appliances right now. Having NFPA 54 and 58 referenced as the standards for LPG, I think actually makes things better, along with the IFGC. So I just want to make that point. Thank you for allowing me to testify.

Dwight Perkins

Good afternoon, Mr. Chairman. Dwight Perkins, IAPMO. In the spirit of being brief, I just want to say that I was a member of the task force on the plumbing code. It was a great group of people working together. From IAPMO's perspective, as we've said in the past, we look forward to working with the local code enforcers upon adoption of the 2003 UPC in the state of Washington. We'll provide free codebooks and training to all code enforcers in the state. And so we'll be good on that promise. And we look forward to working with the state on that. Thank you.

Michael Casey

Michael Casey, representing a water heater and watts regulator company. On the TMP question that's come up, it's obvious that's close to a lot of people's heart. I would concur that 90 plus percent of the time, when a TMP opens it's just dripping. It opens on temperature, it's going to pull out lots and lots of water. The drain line on a drain pan will not handle that flow. So if there's homeowners associations that don't take that kind of thing into account as a standards, if AIA doesn't take that into account say on new construction…then you will get water damage, especially in multi-floor buildings that are wood construction.

On 603.4.11, it's about water makeup connections to steam or hot water boilers protected by an air gap or relief pressure backflow preventer…. One of the problems we're running into in the interpretation on this is that water jurisdictions can also have the backflow prevention cognizance. They take this terminology, and they're blind to the application of boilers. Boilers get used in domestic hot water, and boilers get used in heating systems. What happens is they will say you have to go put an RP backflow preventer on a boiler system for domestic hot water. What that creates is, that creates a 10-psi pressure differential between hot and cold. And if you take and mix the hot and cold back later, in numerous places throughout the building, like in this hotel, that creates some problems. So there could be additional language put in here that would identify for those people that you're talking about heating systems or systems that can have chemicals added to them where there is no further connection to domestic cold water. There are problems that are created by misinterpretation of this particular wording. There are lots of places where that switch applies right now in the existing code. And that's all that I have that I wanted to share.

Bill Misocky

Do you have a suggestion on language?

Michael Casey

I would say that it would apply to heating systems, unless there's additional wording that would be required for anything that would contain any additive that goes into a boiler system. Or domestic hot water boiler systems are exempted. Because the terminology, "closed system, open

system, closed tip model and hot water supply boiler" versus "heating system closed tip model", so once it says specifically that it's exempt for domestic hot water systems, or it's required on heating systems. I'm not sure how else one would do that. But when you get to the top floor of this building, you'll have a lot less hot water because of that.

Energy Code

Chuck Day

Chuck Day, Adair Homes. On page 32 of the energy code suggested amendments, I would just want to restate the point briefly that what's being allowed here are walls to be constructed with foamboard sheathing on the outside of the wall to make up the requirement for the total insulated value. And that conflicts with the structural requirements to build braced wall panels, etc. under Chapter 6 [of the IRC]. I would suggest that the Council consider adding a footnote to the tables in Chapter 6 and investigate the national evaluation reports on this. That would reference the fact that when building a wall under the energy code provisions as stated here, that it is allowable to size up the nails that are used and there are national evaluation reports that say what size to do and all in order to accomplish this. I think that would be very, very helpful.

Other than that, we've been using this type of an insulated wall system for some 25 years at Adair Homes, using the national evaluation reports to get local approval for the structural elements since about 1994-ish, when it has been necessary to do so because the codes have provision for structural panels, that is, bracing, braced wall panels. So it's worked out quite well. And the homes have done very well. But that does create a conflict that ought to be resolved, and can be with probably some additional footnotes to the glazing charts in Chapter 6.

Garth Williams

Garth Williams, Snohomish County PUD, Everett, Washington. Thank you, Council. Thank you, Chairman. First off, I just wanted to show our support for the energy code. We haven't been involved in the TAG process, which we apologize for. But we do support efforts that help clarify the energy code and provide more efficiency.

The second item that I wanted to submit, which we have provided written testimony to the Chairman, which in fact was updated again this morning, so some additional will be coming your way. We would like to propose a bit to the Council. We are late in this proposal, but we will work with the Council and the TAG groups to implement as much as we can. Our proposal consists of installing compact fluorescent light bulbs, screw-in technology, into all new construction where decorative fixtures wouldn't cause this to be unavailable.

And this proposal is really meant to provide more efficiency in the region as soon as possible. Compact fluorescents, all the utilities are providing incentives to reduce the price. The market price has come down. Fixture size, compatibility has increased significantly. The availability and pricing is significantly less than it was just a few years ago. So we are proposing this as an effort that is probably your largest energy saver in at least the residential community. So we'll work with the other utilities and the Council as we move forward. Thank you.

Stan acknowledged that he received Garth's written material. He promised to distribute it to all Council members.

Tom Young

Good afternoon, Mr. Chairman, Council members. Tom Young, Northwest Concrete Masonry Association in Lynnwood. I'm here today representing the masonry construction industry. Our industry is comprised of many small businesses, primarily in the contracting and manufacturing business. My comments today will address three nonresidential energy code change proposals, Items No. 9, 13 and 14.

The first one, #9, we do support this change to Section 1310. As stated, the proposed change provides some consistency with the semi-heated space requirements in the state of Oregon. I do represent the region, and so consistency is important. These requirements were developed with the consideration of cost-effectiveness.

On the second item, Item #13, we oppose this proposed change to Section 1331. Removing the use of the envelope standard computer program severely restricts the application of the component performance envelope option. The latest version of the program does not correspond exactly with the building envelope requirements of Tables 13-1 and 13-2. However, it does support the ASHRAE Standard 90.l-1999. We believe ENVSTD should be maintained as an acceptable compliance option. The program's easy to use and provides greater design flexibility and simplicity than the alternate code equations that are left with tradeoff, which are Equations 13-1 through 4. They're rather challenging to work your way through.

We also oppose the rule of the separate concrete masonry wall tables, which are within the prescriptive envelope requirements of Tables 13-1 and 13-2. This is Item #14 and is found on pages 79 and 81. These mass wall tables were developed based upon compliance with ASHRAE Standard 90.1, too. They are frequently used for energy code compliance, providing flexibility and ease of use for both designers and code officials. The proposal does include a replacement provision for the masonry requirements in Climate Zone 1. However, the proposal is not complete, as there is no optional provision for masonry walls with small glazing areas in Climate Zone 2. Additionally, the proposed removal of the ENVSTD computer program I mentioned compounds this problem.

Further analysis needs to be completed prior to changing the prescriptive path requirements for masonry walls. The analysis needs to include cost impacts, which seem to be missing from the proposal. The proposed changes are not cost-effective in many common masonry building types. Requiring excessive insulation levels in masonry walls can oftentimes increase air conditioning loads and therefore decrease energy efficiency. We recommend maintaining the current masonry code provisions.

I did participate in the Energy Code TAG process and discussed these issues there. I appreciate the opportunity today to present my testimony to the Council directly. Thank you.

Dennis Augustine

Dennis Augustine, representing the Washington State Conference of Masonry Contractors and the Bricklayers and Allied Craftpersons Union #1 in the Seattle Area. Good afternoon. Thank you for letting me be here. We are a group of small businessmen, small contractors that build masonry buildings, primarily commercial buildings, anything from 7-11 up to Safeco Field. We employ about 2,000 masonry people in the state of Washington.

I'm here to support what Tom had to say. And while changes are necessary, very often change for change's sake without a lot of further study is not necessarily a good thing. We propose that you consider Tom's request to give further thought to the sections that he outlined. We believe that the proposed changes will have a detrimental impact on the masonry industry. And, again, we believe further study should be done. Thank you for your time.

Jeff Sloan

Jeff Sloan, representing ASHRAE Puget Sound. Good afternoon. I'm a mechanical engineer. And I'm the Design Manager of the McKinstry Company in Seattle. We're the region's largest mechanical contractor. We design, build and operate mechanical systems, including fire protection and electrical work. By all accounts, we are the largest single consumer of permits in Washington State. We have also grown to become the largest licensed energy services contractor based here. Our job is to understand and apply what are the best energy investments for many of the largest and the smallest businesses in the state.

The current energy code unfortunately limits good business practices by offering too few alternatives to air economizers. It was my honor to represent the local ASHRAE chapter as a member of your Energy Code TAG committee. I learned that the statute, which authorizes the code, requires us in this room to hold the door open for proven, new technologies and not to limit applicants' choices to inferior methods. Code changes should incorporate nationally recognized standards when possible. Air economizers are required by default and are universally accepted as the best method in our climate to trim energy use in cooling systems. But less well understood by those outside the design industry are the reasons why alternatives to air economizers are necessary.

When cooling loads are concentrated and they operate on extended or full-time schedules, and they're located where it's most difficult to reach them with sufficiently large ductwork, then different, more expensive methods must be used. Current code allows roughly 10 percent, or 20 tons in a building, to be installed without an economizer. These days that won't meet the needs of a typical building's computer rooms. So further cooling capacity must, by code, come from something called a water economizer. Now I won't dwell here on the poor investment that supports the risks it presents and how frequently the mechanisms are disabled. The equipment efficiency of water economizers is not rated by any national standard. So ultimately this creates a disincentive to apply for permits and comply with code.

The proposed revisions to Exception 1 in Section 1433 would provide an alternative that all parties would prefer. Not only would the first 10 percent increment of noneconomizer capacity be required to meet a higher efficiency standard, but the next 10 percent increment could utilize a water economizer or a variety of proven or yet to be discovered approaches. High efficiency is

defined in terms of the same national standard used by the current code. In order for the proposed changes to 1433 to remain compatible with Section 1423, I'm asking here that the Council consider simplifying Section 1423 to simply require compliance with 1433.

I also want to put in a word of support for the proposed washing machine, clothes laundry machine, efficiency standards. Thank you.

John Neff

On the issue of 1433, you are then supporting the adoption of it as it is written?

Jeff Sloan

I'm in favor of leaving it as written.

Patrick Hayes

Patrick Hayes, representing the Building Industry Association of Washington (BIAW).
I'm on both the Energy Code TAG and the Mechanical/Ventilation Codes TAG. And I think I got perfect attendance. I enjoy doing it. And it's a good group of people.

In overview, along with the International codes, I would support going to the National Energy Code. That process goes down the road. And possibly you can do away with our current energy code, mostly due to the quantity of changes that we have brought upon ourselves in this state in that code. It's mind boggling over the last few years. And here we are looking at a whole new, longer list of changes.

So my main focus here today is on the proposed changes to the nonresidential energy code. That proposal came out of the City of Seattle. And we feel it's premature. It was just adopted last year by the City of Seattle through their process, and then actually was adopted on March 1 of this year. And mathematically speaking, (That's what I do for a living. I'm an energy consultant. I'm the guy who gets to take the math in the code and take somebody's building project and try to marry them together and make them work. Well, that's really what these codes come down to, nothing more than a big math equation. That's an untested mathematical equation.) I would be more comfortable if the code existed for possibly three years, to our next cycle, and then the City of Seattle comes forth and says, "Well, we think this is a great code. And here's all the math behind it. Here's the data of how much energy we saved via these proposed changes, especially to the envelope." Well none of that data was presented, because it doesn't exist, because it hasn't been here long enough. And that coincides with what the masonry people said.

So, specifically, we oppose Nos. 11, 12, 13, 14 and 22. The reason I speak out on No. 22 on the washer issue is mostly in support of low-income housing, the traditional cost to low-income housing. Any time we add cost to low-income housing, we build less units. And when we have less units, we have less units available for Section 8 people, and so on and so forth.

Back to the nonresidential code, they were discussed greatly during the TAG and there were modifications made. But there still wasn't time available to mathematically test them on a

building. And for multiple types of buildings, anything from a CMU block building to a wood-frame building, light-gauge metal stud building. Part of that test is three things: constructability and does it save energy? Are we putting a code together that possibly is not constructible? And there's language in there that makes wall assemblies not constructible. And that's really what the masonry people were talking about.

So our suggestion is to vote on caution. Let the dust settle on that code. And let them re-propose their changes down the road with some better data.

John Forde

John Forde, Seattle City Light. Good afternoon. Thank you for taking my comments. My comments are specific to the residential proposals to the energy code.

Seattle City Light appreciates the hard work of the Energy Code TAG and strongly recommends the proposed residential amendments to the Washington State Energy Code (WSEC), specifically Sections 101.3.2.5, 502.1.4.8 and 602.2, be adopted into the WSEC. Seattle City Light believes these proposed changes will increase energy efficiency in residential construction, thereby reducing reliance on limited resources in both natural gas and hydroelectric production.

Chuck Murray

Chuck Murray, Washington State University's Energy Program. I'm a member of the Energy Code TAG. Primarily I want to stand in support of the work the TAG did in presenting this whole document to you. I do have to do a bit of rebuttal in addition to that, simply because of some of the things the concrete/masonry folks said.

Concrete/masonry, as it stands in our code, is at best an R-3 wall. Is R-3 good enough? Or is the proposed R-5 wall perhaps a better type. That's about as simple as I want to make it. And thank you for allowing me to speak.

Al Dietemann

Al Dietemann, representing Seattle Public Utilities. I'm here to talk to you about what's on page 97, which is 1440, the commercial clothes washer. We strongly encourage you to adopt this measure. California and Texas have both adopted commercial clothes washer code standards now. Oregon and Maryland also offer tax incentives or tax credits for adoption of the more efficient washers. It's very rare that you see the opportunity with a product that's any more of a slam-dunk than a commercial clothes washer. The high-efficiency clothes washer is now a very rapid payback. On the residential side, you're looking at paybacks in Seattle of about two years on water, energy and sewer savings. On the commercial side, the machines are used even more rapidly and more frequently. And most of the commercial machines are simply a coin box on a residential machine. So there's not a tremendous difference there.

I would really encourage you to do this. The paybacks for the customers are on the order of a year or two at the most, depending upon how frequently the machines are used and what the local utility rates are in the area. It's probably one of the most cost-effective measures that people can take. We're already seeing, in Seattle, a wide adoption of the more efficient

machines in most of the commercial laundromats and the routing companies. When we adopted it in the Seattle code, we had testimony from some of routing companies. They're in favor of it, too. So I'm just putting a good plug in here. I hope that you will consider adopting this and joining some of the other states that have already done so. Thank you.

Dale Shafer

Can you define for me exactly what you're talking about in a commercial water heater?

Al Dietemann

On page 97 where it talks about commercial clothes washers…shall have an energy factor of 1.26. Mostly these are commercial laundromats. But there are client-operated machines elsewhere. We're basically just talking about coin-operated machines here, as you'll see under the definition. So it's not residential machines. Residential machines are already covered by federal law, by the energy act. But the federal law exempts commercial machines. It's up to the states and localities to adopt efficiency standards for commercial machines. As I said, California and Texas have already done so.

Dale Shafer

Are we talking about appliances or construction? Is this something you have to get a building permit to install?

Al Dietemann

Most of the commercial clothes washers, typically in a laundromat, are installed as pretty much a permanent fixture. The way they're plumbed and set up in the unit, it would be unlikely that somebody would sell their commercial laundromat without the machines. Yes, it is more a permanent fixture.

John Hogan

John Hogan, City of Seattle. Thank you for the opportunity to provide comments this afternoon. I have a general comment and then response to a couple of specific comments.

First we commend the Council, the TAG and the staff for all their work on maintaining the WSEC. It's not one of the International codes. It's Washington State's code. And you are the group that maintains that. In particular, we commend you for adopting the building envelope requirements of Standard 90.1, the ASHRAE standard that is cited in the National Energy Policy Act as the baseline for state nonresidential energy codes.

In response to specific comments, I want to talk first about the building envelope tables for nonresidential buildings. This is Tables 13-1 and 13-2, which are on pages 78 through 81. Seattle did make the proposal for modifications, as Patrick Hayes noted. But Patrick also noted that there were modifications made by the TAG. So what you have before you in the proposed rulemaking is less stringent than what we have in effect in Seattle now. What you have before you is more consistent with the ASHRAE standard. Seattle did adopt more stringent

requirements in September 2001, two years ago, with a grace period that allowed people to use alternate codes through March 2002, about a year and a half ago. Within those tables, (and I have a copy here of Standard 90.1, if anybody wants to refer to it) the metal frame wall requirements in Climate Zone 2 are taken from Table B-17 for Spokane. They match that exactly. The values for Climate Zone 1 are between Seattle and Yakima. And Seattle and Yakima in the ASHRAE standard aren't in the same climate zone, are in a different climate zone. So this slightly different line drawing than what we have in the state code, but it's in between those values.

For the mass wall values, values in Climate Zone 2 are taken straight from the value for B-17 for Spokane. The values for Climate Zone 1 are taken from Table B-14, which is Seattle. So this is actually slightly less stringent than the requirements for Climate Zone 1 in Washington State.

Tom Young raised some questions about the masonry values. These are national values. They are cited in the National Energy Policy Act, ASHRAE Standard 90.1. You've had hundreds of changes in the IBC, IMC. I even heard a lot of discussions about the costs and the values. That's a national document. You've accepted that as coming out of the national process. ASHRAE Standard 90.1 again is also referenced in federal legislation.

In Spokane, I indicated our support for clarification for masonry walls that you could do area weighted averaging U-factor. That's included in our written comments, with specific language to do that. And I think that responds to a portion of their concerns. The ENVSTD Program, which Tom Young also mentioned, the current code references the 1989 version of that. In Seattle we've updated that to a version that complies with our current code. We would certainly make that available if anybody wanted to add on to that to include different versions for updated requirements for the WSEC.

The other comment I'd like to talk about is the clothes washer one, and to respond to a quick comment to clarify. This is in the nonresidential portion of the code. This does not apply to Group R occupancy. If you look at the IBC, Section 302.1.1, it specifically identifies laundry rooms as spaces that are incidental to the main occupancy. So this would not apply to laundry rooms that are in apartment buildings. This is a nonresidential issue. This is not a low-income housing issue, or an apartment issue. Thank you.

John Neff

The question I'll ask you again is on the economizer issue. I know you didn't testify today on it. But I think it was you in Spokane that mentioned not striking out the first two sentences. What is the difference, either leaving it as it's proposed on page 95, or by leaving the first two sentences?

John Hogan

Essentially, the issue is whether you allow larger sized units to not have an economizer. The national standard, 90.1, only provides the exception for small units. And then in Washington State, we have this cap on how many small units you can have. So the difference between my proposal and what's in the rulemaking is to say you couldn't have a larger 40-ton unit, in fact, without an economizer. Without reinstating those two sentences, you could have one 40-ton unit, not a lot of small units. I know Jeff Sloan feels very strongly about this, to offer his side.

The concern is that's fine for certain smaller units that might be in a water source heat pump loop. He's concerned about some units that might serve computer equipment in the center of a building, where he would argue it doesn't make sense to put in some smaller units to get under this size threshold. Just let them put in a larger unit. So I think that's the issue with those two sentences.

Michael Casey

Michael Casey, a manufacturer's representative. On the 504.2, there are a couple of things on that particular page…. You're referencing other codes. And one is going out-of-date in four months. 504.2.1 refers to 1987 National Appliance & Energy Conservation Act. We refer to this as NAECA. NAECA-2 takes effect January 20th. So you may want to just put that down as the current NAECA standard, which you don't have to ever change that. And the numbers that are in the table are approximately the minimums that are in that new NAECA standard.

On 504.2.2, insulation of unfired hot water storage tanks, I just saw this when I was reading through this. I'd never seen it before. And I've never seen a hot water storage tank or any type of storage tank rated that way. There's lots of reference in here to ASHRAE 90.1. And that's how insulated storage tanks are measured. They either comply with ASHRAE 90.1 or they don't. And so, if it's an uninsulated tank, it doesn't comply with ASHRAE 90.1. Any storage tank manufacturer, if it's insulated, it has to comply with ASHRAE 90.1. So this is very ambiguous, what it's asking for, 9.6 BTUs per hour per square foot. That information would take lots of time to get for any particular inspection on any job.

The other one, which I apologize, I can't find the paragraph number. It says in here that water heaters are not approved for space heating only. I think one of the things that we would encourage you is not to dictate what components can go in, but allow the designer to do the best they can for the whole system. And there are certain incidences where you don't need a boiler to do a heating system. You may only need a 20-gallon electric water heater to get enough BTUs for a small area that somebody adds on to a house or something like that. And it might be better invested in the controls of the system, than trying to say that they have to use this particular kind of component. Or that eliminates that choice. They have to put in some other type of heating system. So thank you very much.

<u>Ventilation Code</u>

Patrick Hayes

My name is Patrick Hayes, I am an energy consultant representing Building Industry Association of Washington. I participated in the Ventilation Code TAG regarding these issues. We oppose the proposed radon mitigation proposals for two main reasons. One, it's going to add cost to the house. Adding costs to homes just is not a good thing and we oppose that. The second reason is it's not really a truly engineered, proven method. It's a proposed engineering method. Being an engineer I don't believe that proposed engineering methods should become building code. They need to be tested and proved before they become building code. We stated that in the TAG process, some of it was modified a little bit and it did get moved forward. I would have rather seen it not get moved forward even to this point because it is not a tested, proven system. Codes need to be a little bit more consistent and proven systems. Thank you.

Dave Gerard

My name is Dave Gerard, I'm with Advanced Radon Technologies and I'm a member of the Ventilation Code TAG. I am the author of this particular code amendment and it has been as engineered as I could possibly do it. I've been in the radon industry for about 10 years working in Spokane. With the experience I have, because Spokane has such a unique geology concerning radon that it's in and of itself on a nationwide basis. Because of my experience in our varied geology, they've asked me to sit on several technical advisory committees to rewrite the national code. This code was originally written by the EPA in the late 1980s based upon a study done in Pennsylvania. The Pennsylvania study was--the houses were all built on very dense clay. That is found in Spokane, but very rarely. Eastern Washington's geology is unique because of the great Spokane Missoula floods of the last ice age, which gave us very, very porous soils. We have very low concentrations of radon in our soils, but very porous soils so we rely on pressure differentials to a much greater degree. My code changes that I have proposed do not really help these systems in a passive sense. They help them when they have to be activated. Spokane does not have the worst radon problem in the world, on either the number of homes that are affected which is about 60 percent of them are above the EPA's guideline or in the highest levels, but there are lots of portions of Spokane that the average house is 10 times the EPA guideline. These passive systems will actively reduce those radon levels to about 10 or 12 Pico curies per the EPA guidelines. All I've tried to do by proposing these changes was make these systems more efficient when they have to be activated, which is reasonably frequently.

Three-inch pipe is very restrictive. It works okay the way this code was originally intended because you had a layer of aggregate sandwiched between a layer of impervious clay and a layer of impervious cement. When you put it on top of the most pervious soil on the planet, which is what the entire Percival Trench through the middle of Spokane is, it doesn't carry enough air. Without having some sort of restriction on the size of the slab with porous soils often you've satisfied the fans ability to pull air through the pipe before you mitigate an area in between this little u-shaped area along the entire slab.

The second portion, there are three portions, the pipe size and the slab size. The second portion is in paragraph 503.2.6. That's in direct contradiction to what's in paragraph 503.2.6. Section 503.2.6 says that the exhaust point needs to be 12 inches above the eave, 10 feet from wood stove or fireplace chimney or an operable window. But, in the next section that I'm suggesting we do away with it says that the terminus should be 6 feet away from operable windows and it's right at the rim joist so it's right at grade. So we have a direct contradiction inside the code.

The last one is the separate aggregate areas. I know in Spokane someone proposed, I saw the pictures that were provided from Colorado Vintage Companies where they showed the two pieces of pipe inside the footing. That works when you're sandwiched between two impervious layers of material. When you're on very porous soils it doesn't work very well. The pipe size has been the biggest problem we've had in trying to activate these systems and then the next one has been the footings, stopping the airflow, only depressurizing half of the slab. Thank you for your time.

Mike Brennon

Mike Brennon, Washington State Department of Health. I'm in the office of radiation protection. I have for the last several years been the primary contact with the public on radon issues with the Department of Health. I would like to state that radon is indeed a public health issue worth addressing. I came to this area from a background of nuclear engineering and nuclear weapons in the Navy and initially looked at radon as levels far, far below what I had been experienced with. But, the research is really very clear that radon is indeed a carcinogen. The more people are exposed to it, the greater the chance of developing lung cancer. It doesn't take a lot of cost benefit analysis to realize that reducing the exposure and potentially reducing the number of lung cancers turns out to be very beneficial for both the individuals involved and society as a whole. The changes that are recommended here represent a recognition that indeed conditions in the area within Washington where we mandate radon resistant new construction are different than the conditions that were present where the codes by the EPA or the recommendations by the EPA were initially developed. Last week I was at the national radon meeting and we had several presentations from various parts of the country pointing out where their geology was different enough that a national one-size fits all approach really doesn't work. I would have to say that if you want to, if somebody wants to wait until there is a perfectly proven engineered system, then the time to start building that system in your particular location is now to find out what the peculiar situation is so that you can find out how you have to modify it to make it work. These changes represent a modification in response to the particular situation that has been found in a number of years of experience in the Spokane area where the majority of our radon problem exists.

WAC 51-04 Policies and Procedures

Marty Gillis

Thank you for your time today. I know it's been sort of a long day and you're tired of listening to all of us so I appreciate the time you're about to afford to me to listen about your own rule making. I have a couple of questions and maybe it's just me and it wouldn't surprise me if it were. I have a question about what occurs on page two, item nine, which is what I understand to be a definition of what the model codes means. I think there's something that we should include in here called the International Residential Code and I don't see it listed. I'm hopeful that that will be considered a friendly errata item and could be taken care of editorially. I don't think it was meant to be excluded.

The other question I have is at the top of page three where it's a bit of philosophy that I'm struggling with. When the Building Code Council was originally created it was to provide some level of uniform amendments in the state of Washington. At that time, the charge pretty much said we have some uniqueness in Washington; because of our climate, because of our soil conditions, we're different than another of state. This allows us to create amendments at the state level instead of going to the model code standard or the uniform as printed codebooks that we were adopting at the time. It was in order to put all of the various cities and counties on the same page, on the same codebook because at that point many of the cities and counties had adopted various years of the codebooks. So, it was a way of bringing everybody up to present date. Now what's confusing over time, some of the amendment processes have, in my opinion, failed the litmus paper of highlighting, they've brought for this body because of the uniqueness

in the state of Washington because of climate, because of weather, because of conflicts with other state laws or federal regulations that were in force with the state of Washington. I sense that some of the time the items brought forward to this body have been because an issue has gone forward through the model code organization and perhaps that item was not successful and so it's a little bit of "spilt milk". They've decided to bring the issue forward again, but at the state level and fight the issue at a state-by-state level instead of going through the model code. What I'm looking at the top of the page it says revisions accepted shall be submitted to the International Code Council and International Association of Plumbing and Mechanical Officials. What it's saying there is if an amendment is successful going through the state of Washington, by all means forward it on to the code writing, or code development process. It doesn't clearly state that it shouldn't happen in reverse. What I would like to see is some sort of a position paper developed or a philosophical statement coming from this body that if it's not unique to the state of Washington and you just happened to not make your point clearly or the idea has merit but needs further development, please take it through the national process. Don't fight your battle in the state of Washington to recoup some losses. Thank you very much.

Kraig Stevenson - deferred

Motion #1:

Dave Baker moved to close the public hearing on proposed code changes with the exception of written testimony received in the Council offices with a postmark no later than October 17, 2003. Chris Endresen seconded the motion. The motion carried unanimously.

STAFF REPORT

Tim Nogler stated that the public address equipment used during today's meeting belongs to the Energy Facility Site Evaluation Council and he thanked them for the loan of their system. Tim also noted that the staff will look at alternatives for purchasing similar equipment to use at future Council meetings.

Tim reported there are five Council members whose terms will expire at the end of 2003. They are Stan Price, Rory Calhoun, Terry Poe, Peter DeVries, and John Fulginiti. Tim stated that all five members are eligible for reappointment if they are still willing to serve. He will be working with them and their sponsoring organizations to facilitate the process.

ADJOURNMENT

Stan thanked everyone for their participation in the public hearing and stated that the Council will carefully considering this information at their work session on November 21, 2003. That meeting is being held at the Red Lion Hotel Seattle Airport.

Lacking further business, Stan adjourned the meeting at 2:12 p.m.